

PERSONALITY CHARACTERISTICS OF STUDENTS WHO BELIEVE THEMSELVES TO BE PSYCHIC

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ABSTRACT

A sample of 301 psychology university students was administered a large number of questionnaire scales along with a visual analogue measure of conviction that one is or is not psychic. Results showed that those students who believed themselves psychic were, as expected, much higher on other sheep-goat variables, were higher on the variable known as transliminality, and tended not to read the Bible. Subsidiary analysis showed such students to be higher in absorption, more favourable towards dream-interpretation, older, higher in magical ideation, again, with a tendency not to read the Bible, higher in religiosity and in creative personality, engaging frequently in dream-interpretation, and lower in dissociation. Psi experimenters may want to examine whether the soi-disant psychics of samples such as this one are also good at objective psi tasks in the laboratory.

INTRODUCTION

In the course of filling in the questionnaire known as the Australian Sheep-Goat Scale (Thalbourne & Delin, 1993) it is possible to endorse, to a greater or lesser degree, the statement "I am completely convinced that I am psychic". Are there psychological characteristics which differentiate between those who so endorse this statement from those who endorse its opposite, "I am completely convinced that I am *not* psychic"?

It seems that while much research has addressed the characteristics of believers in ESP (see Irwin, 1993), very little work has been directed towards this more specific question. Some work has been done on the question of what are the personality characteristics of 'the psychic', as opposed to 'ordinary' persons who describe themselves as psychic. Nevertheless this literature will be reviewed because it is the only work available that is at all relevant.

Schmeidler (1974, pp.98-99) cites three pertinent studies from the Continent. In the first two:-

Sannwald [1962], working at Bender's laboratory in Freiburg, and Tenhaeff [1962], at the University of Utrecht, report on a large number of professional psychics. Presumably all gave prima-facie evidence of psychic ability, and some were tested with good success. All volunteered for the psychological investigations. Findings were based on interviews and especially on data from a long battery of such tests as the Rorschach. Both Sannwald and Tenhaeff report that these psychics showed so much commonality as to justify general conclusions about their personality. The psychics were strongly extrovert, imaginative, and sensitive to external stimuli. They tended to be hysterical as opposed to neurasthenic (i.e., dissociated rather than obsessive-compulsive), to identify too readily with the persons around them, to be inadequate in will, and to have 'disintegrative personalities'.

Schmeidler goes on to note discrepancies with other descriptions of psychics, and concludes that "the Sannwald and Tenhaeff conclusions apply only to a special subclass of psychics" (p.100). She then describes the third study (loc. cit.):—

A questionnaire about psychic experiences was distributed in Amsterdam to a very large number of respondents, and Greiner [1964] selected for testing 21 who reported strong, frequent experiences; 21 who reported none; and another random sample of 21. The extensive test battery overlapped with that of the previous workers and included the major test of field-dependence-independence. No difference between groups was found.

Hearne (1989) administered the Cattell 16 Personality Factor test (Cattell & Eber, 1969) to a sample of 50 self-styled psychics and mediums, and found from observation of the mean scores that his sample was more 'self-sufficient', 'undisciplined', and 'affected by feelings' (emotionally unstable). According to my own analysis using slightly more liberal criteria the sample could also be characterized as more 'apprehensive', 'imaginative' and 'suspicious'.

But, as we have been at pains to emphasize, self-styled (mediums and) psychics and those who declare themselves to be psychic may fall into only partially overlapping groups. A personality study with the latter group is warranted. It should be noted that this study is a further analysis of the ones reported in Thalbourne (in press-a).

METHOD

Participants

Participants consisted of 301 subjects, mainly students at various levels of psychology at the University of Adelaide, two-thirds of whom volunteered for the study and a third of whom did the questionnaires as a class exercise in psychological computing (the analysis of psychological data using computing software). These points must be borne in mind when attempting to generalize the results. Of these participants, 29% were males. Age ranged from 17 to 63, with a mean of 24.33 and an *SD* of 9.57, the distribution being strongly skewed towards the younger end (skewness = 1.75).

Materials

Set 1. In order of administration these measures were (1) the 18-item visual analogue Australian Sheep-Goat Scale (Thalbourne & Delin, 1993) as a measure of belief in, and alleged experience of, paranormal phenomena; the item regarding belief that one is psychic was removed, leaving a 17-item Reduced version of the Sheep-Goat Scale; (2) the revised version of the Survey of Belief in an Afterlife (Thalbourne, 1996b, 1996c); results with this questionnaire are reported in a separate paper (Thalbourne, in press-b); (3) the 9-item (true-false) Creative Personality Scale devised by Thalbourne and Delin (1994), which measures personality characteristics said to be typical of creative persons; for one attempt to validate this scale see Thalbourne et al. (1997: Study IV) and for another, more successful, attempt see Thalbourne (in press-a); (4) the 22-item (true-false) Mystical Experience Scale (Thalbourne, 1991: three contentious items have been dropped from the original 25-item scale); (5) the 34-item (true-false) Absorption Scale, devised by Tellegen and Atkinson, which is said to measure "a disposition for having episodes of 'total' attention that fully engages one's representational (i.e., perceptual, enactive, imaginative, and ideational) resources" (Tellegen & Atkinson, 1974, p.268); (6) the 48-item (true-false) Inventory of Childhood Memories and Imaginings:

Children's Form (ICMIC), devised by Myers (1983) as a measure of fantasy-proneness; note that as the ICMIC contains five items of a parapsychological nature, it was deemed wise to use instead a version of the scale (here called ICMIC Reduced) that omitted such items to avoid overlap with other scales, in particular the Sheep-Goat Scale; (7) the 8-item multivalued-response scale devised by Haraldsson (1981: Appendix A, items 1 through 8) to measure religiosity in a general sense (for validation data see Thalbourne, 1995, and Thalbourne, in press-a); and, as well, the single items, "Have you ever had a vivid religious or spiritual experience?" (yes/no); "How often do you read the Bible?" (never/seldom/now and then/often); and "Do you read books on Eastern religions or theosophy" (never/seldom/now and then/often); (8) the 6-item (true-false) Hyperaesthesia Scale compiled by Thalbourne (1996a) to measure hyper-sensitivity to environmental stimulation; (9) the single true-false item "A person should try to understand their dreams and be guided by or take warnings from them", which is MMPI item #11 (Dahlstrom, Welsh & Dahlstrom, 1972); and (10) the single multi-valued item "Do you attempt to interpret or understand your dreams?" (never/seldom/now and then/often) from Haraldsson (1981, Appendix A, item 14).

Bernstein and Putnam's (1986) 28-item visual-analogue Dissociative Experiences Scale was presented for half the subjects in Set 1, and in the other half in Set 2.

Set 2. Again in order of presentation, this set consisted of (1) the 30-item (true-false) Magical Ideation Scale as an index of schizotypy (Eckblad & Chapman, 1983); eight items were removed because of their parapsychological nature, to prevent item overlap, this scale being called Magical Ideation Reduced; (2) the 18-item (true-false) Manic-Depressiveness Scale (Thalbourne, Delin & Bassett, 1994), 9 items of which are scored for history of Manic-like Experience and 9 items for history of Depressive Experience; (3) the 37-item (true-false) STA scale reported by Claridge and Broks (1984) as a measure of schizotypal personality; (4) the 12-item (true-false) Hallucination Scale devised by Launay and Slade (1981) as a way of measuring predisposition to hallucinations of the visual and auditory type; (5) Riley's (1988) 26-item (true-false) Questionnaire of Experiences of Dissociation; (6) for 28% of the subjects, the Eysenck Personality Questionnaire - Revised (Eysenck & Eysenck, 1991), measuring extroversion (E), neuroticism (N), psychoticism (P), and dissimulation (the Lie scale L); and (7) the 29-item Transliminality Scale, responses to which were not procured on a separate scale but were *derived* from portions of the data above (see Thalbourne, in press-a); Transliminality is a factor-analytically derived variable currently defined as "susceptibility to, and awareness of, large volumes of imagery, ideation and affect—these phenomena being generated by subliminal, supraliminal and/or external input"; since "I am convinced I am psychic" is one item on this scale, it was removed from the measure, leaving a Transliminality Scale (Reduced).

Descriptive statistics for the 'belief that one is psychic' visual analogue scale indicate a range from 1 to 44, that is, across the entire possible range of scores, with a mean of 16.25 (indicating a tendency towards agnosticism or even scepticism) and a standard deviation of 11.40, skewness being an acceptable 0.27, with an unusually large number of subjects (12%) marking the lowest

possible position on the visual analogue scale, which was scored as 1 (completely convinced that one is not psychic).

Descriptive statistics for the other variables from both Sets 1 and 2 may be found in Thalbourne (in press—a: Table 1) (except for the Transliminality Scale, the results of which may be found there in the relevant text).

Procedure

The proposed questionnaires were submitted to the scrutiny of a departmental ethics committee, and were found to comply with ethical guidelines. Except for the class exercise in computing, which was for teaching purposes, all subjects gave written consent to participate on two occasions, separately for Set 1 and for Set 2.

The majority of subjects completed Set 1 of the questionnaires in a one-hour timeslot, and Set 2, if they so volunteered (which not all did), in a similar timeslot one week later. The computing subjects completed both sets together at their leisure. Feedback about the suggested meaning of the responses to the questionnaires was made available to those who wished.

RESULTS

Table 1

Pearson Correlations Between Belief that One is Psychic and the Remaining 17 Items of the Australian Sheep-Goat Scale, in Order of Magnitude (max. N = 297)

Item	<i>r</i>
6 Had veridical premonition	0.64
2 Had personal experience of ESP	0.63
16 Has marked PK ability	0.60
13 Had experience of telepathy	0.59
11 Grants possibility of receptive telepathy	0.55
1 Believes in existence of ESP	0.55
12 Grants possibility of active telepathy	0.55
15 Has personally exerted PK	0.54
5 Had veridical hunch	0.54
14 Believes in existence of PK	0.53
17 Observed non-recurrent PK	0.52
4 Grants possibility of precognition	0.50
7 Had a precognitive dream	0.50
8 Had a paranormal vision	0.49
10 Believes in spirit contact	0.42
18 Observed recurrent PK	0.42
9 Believes in life after death	0.23

Note: All coefficients are significant at the 0.001-level or better, two-tailed.

1 The 'belief that one is psychic' scale was first correlated with every other item in the Australian Sheep-Goat Scale. It was expected that if the 'belief

that one is psychic' scale was valid it would correlate significantly positively with the majority of the other items in the Sheep-Goat Scale. These correlations are displayed in Table 1, in order of magnitude of coefficient.

It can be seen that each and every other item in the Sheep-Goat Scale correlated positively and significantly with the belief that one is psychic. These correlations ranged from a low of 0.23 (belief in life after death) to a high of 0.64 (belief that one has had a veridical premonition).

Table 2

Pearson Correlations Between Belief that One is Psychic and 25 Research Variables (max $N = 297$)

Variable	<i>r</i>	<i>p</i>
Australian Sheep-Goat Scale (Reduced)	0.72	< 0.001
Transliminality (Reduced)	0.62	< 0.001
Absorption	0.50	< 0.001
Magical ideation (Reduced)	0.45	< 0.001
Fantasy-proneness (ICMIC, Reduced)	0.42	< 0.001
Mystical experience	0.41	< 0.001
Schizotypal personality (STA)	0.36	< 0.001
Creative personality	0.36	< 0.001
Frequency of dream-interpretation	0.35	< 0.001
Attitude towards dream-interpretation	0.33	< 0.001
Launay-Slade Hallucination Scale	0.29	< 0.001
Religiosity	0.29	< 0.001
Hyperesthesia	0.28	< 0.001
Questionnaire of Experience of Dissociation	0.27	< 0.001
Vivid religious or spiritual experience	0.27	< 0.001
Reading about Eastern religions	0.26	< 0.001
Manic experience	0.26	< 0.001
Dissociative Experiences Scale	0.24	< 0.001
P (Psychoticism) †	0.23	0.033
E (Extraversion) †	0.19	0.095
Age	0.17	0.004
N (Neuroticism) †	-0.12	0.268
Depressive experience	0.09	0.146
L (Lie scale) †	0.09	0.445
Bible-reading	-0.08	0.144

† $N = 83$

Because all these items are themselves related to each other, it was thought useful to apply multiple regression analysis to see which are the more important variables and which the less important variables. When all 17 items were entered into the analysis (using the forward stepwise selection method; $N = 288$), the overall multiple correlation coefficient was high and significant: $R =$

0.77, $R^2 = 0.60$, $F = 106.16$, $df = 4,283$, $p < 0.0001$. The variables that entered the equation, and their beta coefficients,¹ were, in order, having had a veridical premonition (beta = 0.28), having had personal experience of ESP (beta = 0.25), having marked PK ability (beta = 0.28), and granting the possibility of receptive telepathy (beta = 0.17). It is interesting that no afterlife beliefs entered the equation: being psychic does not automatically mean that one is a medium or even that one believes in life after death.

2 The 'belief that one is psychic' scale was then correlated with all available research variables—most of them multi-item scales. The results are displayed in Table 2, in order of magnitude of coefficient. As to strong relationships, the ostensibly psychic (predictably) scored much higher on the Australian Sheep-Goat Scale (Reduced), and on the Transliminality Scale (Reduced). Such subjects are clearly strong sheep, and are much more transliminal (that is, material crosses thresholds more readily into and out of consciousness).

Regarding moderate effect sizes, the ostensibly psychic scored higher on absorption, magical ideation (reduced), fantasy-proneness, mystical experience and schizotypal personality, interpreted their dreams more often, were higher on creative personality, and had a more positive attitude towards dream-interpretation.

As to weak relationships, the ostensibly psychic were more prone to hallucination, more prone to supersensitivity to sensory stimulation (consistent with the Sannwald and Tenhaeff studies), were more religious, more frequently read about Eastern religions, showed more signs of dissociation (as shown by both the Questionnaire of Experience of Dissociation and the Dissociative Experiences Scale: this finding is consistent with the Sannwald and Tenhaeff studies), more frequently claimed a vivid religious or spiritual experience, and were higher on manic experience and psychoticism (the latter probably indicating nothing more than unconventionality). The ostensibly psychic were also somewhat older.

As to non-significant relationships, the ostensibly psychic were no more extroverted (which is inconsistent with the European findings detailed in the Introduction), were no more neurotic, had an equivalent amount of depressive experience in their clinical history, read the Bible as often as others, and showed no more inclination than others to portray themselves in a favourable light.

As with the previous set of analyses, the data were subjected to multiple regression analysis. Twenty-two variables were entered into the analysis ($N = 225$). Three variables entered the equation before the $PIN = 0.05$ limit was reached, and the multiple correlation coefficient was high and significant: $R = 0.77$, $R^2 = 0.59$, $F = 104.77$, $df = 3,221$, $p < 0.0001$. The variables which entered the equation were the reduced Australian Sheep-Goat Scale (beta = 0.60), the reduced Transliminality Scale (beta = 0.19), and absence of Bible-reading (beta = -0.10). It is noticeable how, with the possible exception of the Transliminality Scale, no other psychopathological scales entered the equation. Those who believe themselves to be psychic seem to be a healthy group.

¹ Beta coefficients enable us to determine how important a given variable is in relation to the other variables also selected into the set of chosen variables.

The term 'multicollinearity' refers to the situation in which, in multiple regression, some of the predictor variables correlate too highly with each other. There is a slight danger of this problem in the present case. Thus, the regression analysis was run again, without the Sheep-Goat Scale (which we already know from the first set of analyses above is important for the belief that one is psychic) and without the Transliminality Scale (which correlates very highly with a number of scales which contribute items towards this composite scale). A subsidiary analysis was therefore performed. Twenty variables were entered into the analysis ($N = 225$). The multiple correlation coefficient was significant ($R = 0.68$, $R^2 = 0.46$, $F = 20.45$, $df = 9, 215$, $p < 0.0001$), and a total of nine variables entered the equation: absorption ($\beta = 0.25$), a positive attitude towards dream-interpretation ($\beta = 0.08$), age ($\beta = 0.25$), magical ideation ($\beta = 0.24$), as before, absence of Bible-reading ($\beta = -0.24$),² religiosity ($\beta = 0.21$), creative personality ($\beta = 0.17$), frequency of dream-interpretation ($\beta = 0.13$) and absence of dissociation ($\beta = -0.14$, again, contrary to the studies cited by Schmeidler).³

DISCUSSION

Because of the caveats espoused in the Introduction, it is not clear, after all is said and done, whether this study can be validly compared with those previous ones cited, at least in the majority of respects. There is a sense in which this study is *de novo*, and if that is true then we must await replication before claiming that people who think they are psychic have this or that characteristic. But perhaps we can show pointers to would-be replicators.

The clearest of these pointers is the finding that such people are very high on the sheep-goat variable, whether considered as individual items or as the overall Sheep-Goat Scale. That this should be so is almost self-evident and trivial. But it is crucial that a replication attempt find it.

On the other hand, not so obvious is the correlation with the Transliminality Scale. This becomes less surprising when we remember that the statement "I am convinced that I am psychic" is one item on this scale, an item which had to be removed before the Scale could be used non-artefactually. The correlation of 0.65 ($N = 221$) between this item and the (reduced) Transliminality Scale confirms the corrected item-total correlation of 0.63 ($N = 201$) for this item and the Scale. The meaning to be ascribed to this correlation seems to be that those who believe they are psychic have permeable thresholds—from unconscious to conscious (cf. the passive aspect of fantasy-proneness, and, possibly, psychic impressions), from the external environment to consciousness (cf. the significant correlation with hyperaesthesia) and from supraliminal consciousness

² In the two subsamples of 225 used here for the multiple regression analysis, Bible reading correlated -0.13 ($p = 0.03$, one-tailed) with the 'belief one is psychic' scale as opposed to -0.08 ($p = 0.07$, one-tailed) in the larger sample of $N = 297$ quoted earlier. This is one reason why it enters the equation whereas we have previously described the correlation with belief that one is psychic as non-significant.

³ In the case of dissociation, the simple correlation (with belief that one is psychic) and the beta weight have opposite signs, indicating that there is a suppressor variable present. The suppressor variable appears to be dissociation. According to Tabachnick and Fidell (1989), "Once suppressor variables are identified, they are properly interpreted as variables that enhance importance of other [independent variables] by virtue of suppression of irrelevant variance in other [independent variables] or in the [dependent variable]." (p. 161).

back to the unconscious (cf. the active form of fantasy-proneness). Now that there is a 29-item short form available to measure transliminality (Thalbourne, in press-a), replication and extension should be facilitated.

Again not so obvious is the finding that people who believe they are psychic tend not to read the Bible. This suggests that if they are religious at all—as the correlation in Table 2 suggests they are—then it is an alternative kind of religiosity, such as is provided by Eastern religious thought (reading about Eastern religions is a significant correlate). At the same time, people who do not believe they are psychic tend to read the Bible, and this is consistent with the casual observation that the traditionally religious tend to reject psychic phenomena as non-existent, despite the argument that can be made for the equation of prayer with telepathy, prophesy with precognition, and physical miracles with psychokinesis.

The fact that absorption enters the multiple regression equation (once the sheep-goat variable and transliminality are removed) suggests a possible psi-conducive strategy on the part of those who believe they're psychic (cf. Irwin, 1985). The fact that a positive attitude towards dream-interpretation and frequency of dream-interpretation enter the equation may have something to do with the Transliminality Scale (in which dream-interpretation is an item) and/or indicate that a certain introspective attitude towards the products of the unconscious may be helpful in leading to psychic productions. Age is more difficult to interpret because most of the sample (79%) were in their teens and twenties, and the age distribution was very much skewed towards the younger end. The entering of magical ideation suggests, *prima facie*, that those who believe they're psychic are more prone to psychosis, but the absence of a correlation with neuroticism suggests that such believers are not in distress and may simply be more prone to thinking magically without psychopathological connotations; after all, they claim that a kind of magic is constantly occurring around them! The entering into the equation of creative personality suggests that similar processes may be involved in being psychic and being creative (cf. Thalbourne & Delin, 1994). The absence of dissociation (measured by the Questionnaire of Experience of Dissociation) is harder to account for, since it is dissociation that is usually said to be involved in the production of psi (Irwin, 1997). Finally, we have both the absence of Bible-reading along with the presence of religiosity, and this again suggests an alternative kind of religiosity. (The Haraldsson Religiosity Scale is perhaps ambiguous with respect to the type of religiosity it measures.)

In short, there do appear to be psychological correlates of the statement "I am convinced that I am psychic". Assuming that these are reliable and replicate, then choosing subjects for psi experiments on the basis of this variable may well prove fruitful.

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